Backgrounder

June 2000

Center for Immigration Studies

Immigration, Population, and the New Census Bureau Projections

By Leon Kolankiewicz

On January 13, 2000, the Census Bureau released its latest U.S. population projections, as it does every few years. This time, perhaps prompted by the changing century and millennium, Census demographers peered further than ever before, all the way to the year 2100.[1] What they saw is ominous: The most probable "middle series" scenario envisions more than a doubling of the already large U.S. population and a dramatic shift from our nation's current ethnic/racial composition.

Yet Census demographers expressed no particular concern at their findings. Indeed they offered reassurances about where the country's population is headed. Principal author Frederick Hollmann told *The Washington Post*, "Our projections in 2100 will give us a population density one-quarter that of the United Kingdom. We'll still be a sparsely populated country among the industrialized countries of the world." This paralleled the almost-nonexistent reaction of the press, politicians, the general public, and even environmentalists. In prosperous times, with the wealth of the nation seemingly growing without end, with apparently limitless technological possibilities, why should it matter if the American population doubles or even quadruples?

The majority of Americans have apparently concluded that it doesn't matter, or that if it did, they couldn't do anything about it anyway. One of the realities an immense population imposes on the individual citizen is a feeling of powerlessness to effect change. Perhaps another reason for the widespread apathy is that the U.S. population has been on an upward trajectory for more than two centuries. Except for two brief periods in the 1930s and the 1980s, when it appeared as if U.S. numbers might actually be starting to stabilize, projections simply have predicted more of the same.

In fact, the population sizes in these projections are not substantially different from those of the Bureau's last projections, issued in 1996.[2] The new projections extend 50 years further and utilize more sophisticated methods, but still, in 2050, the difference between the two projections is rather slight — 394 million in the 1996 projection versus 404 million in the 2000 projection.

Let's examine these projections, after which we'll briefly assess a few of the more profound ramifications for American society if these changes actually do come to pass.

Projections and Assumptions

Per convention, the Bureau released three sets of projections, the lowest, middle, and highest series, from 1999 to 2100. Table 1 (next page) is a summary:

The most obvious trait of these three trends is their magnitude through time compared to today's U.S. population of almost 275 million. After surpassing 300 million before 2025, the lowest series crests, begins a decline, and by 2100 is roughly the same size as our present population and still declining. The middle series continues rapid growth, so that by 2100 it presents a United States greater than double its current size. Under the highest series, which predicts both continued rapid growth and an increase in the *rate* of growth (from 1.01

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percent per year in 2000 to 1.52 percent per year in 2100), the population more than quadruples.

The middle series annual growth rate declines very gradually from 0.92 percent in 2000 to 0.69 percent in 2100. Yet the annual increment of actual population growth *rises* from 2.5 million in 2000 to 3.8 million in 2100, because the base against which the percentage is applied has swollen so much. Paradoxically, rather like Alice in Wonderland, the closer we seem to get to zero population growth, the further away we actually get. The United States added 200 million residents in the 20th century,with another 300 million projected for the 21st.

Another pattern in the above table is the striking four-fold variation between the lowest and highest series. The middle series is two times the lowest and the highest series is two times the middle. The two "extreme" projections are based on lower and higher assumptions about the major determinants of population change: fertility, mortality, and immigration. For fertility and migration, relatively slight initial differences diverge ever more widely as the century progresses. Table 2 below summarizes these assumptions. The Bureau says, "the extreme assumptions are presented primarily with the purpose of illustrating a degree of uncertainty around the central series. They should not be interpreted as alternative scenarios to be adopted on their face value, as they are not intended to be probable developments."[3] That's certainly a relief, because the highest series population in 2100 is almost 1.2 billion, about what China's is today, and it would be growing by about 18 million a year, more than India's annual growth today. China, of course, is the world's most populous country, India the fastest-growing.

Unfortunately, it's hard to be as sanguine as the Census Bureau. That's because their middle series fertility and immigration assumptions — from the perspective of anyone concerned about U.S. population stabilization — have an air of forced optimism about them.

Fertility

For instance, the report notes that, "following 2025, long-term total fertility rates for each race and Hispanic origin category are assumed to move regularly toward replacement level, reaching 2.1 in 2150."[4] What this means is that fertility of non-Hispanic whites and blacks is assumed to rise, while fertility of Asians and Hispanics is assumed to fall, all converging conveniently on that magic figure of 2.1 as if it were a magnet.

The authors say this assumption is based on an analysis of national and international fertility trends and demographic theory. Yet even they concede that reviews of fertility trends by other prominent demographers, "provide no definitive long-term direction for the fertility of the United States." And while admitting that the high fertility of Hispanics and Asians diverges from national trends, the Census authors emphasize that this is because these groups "are comprised predominantly of foreign-born populations that generally maintain higher fertility rates than native women of the same race and origin group." In spite of this sharp divergence at present, assimilation and interracial marriage (exogamy) are assumed inexorably to lead to diminishing fertility differentials over the long term.

Table 1. Census Projections to 2100

	U.S. Population		
Year	Lowest Series	Middle Series	Highest Series
2000	274,853,000	275,306,000	275,816,000
2025	308,229,000	337,815,000	380,397,000
2050	313,546,000	403,687,000	552,757,000
2100	282,706,000	570,954,000	1,182,390,000

Source: *Annual Projections of the Total Resident Population as of July 1: Middle, Lowest, and Highest Series, 1999 to 2000.* U.S. Census Bureau, Population Division, Population Estimates and Population Projections Programs. Released January 13, 2000.

Table 2. Fertility, Immigration Assumptions for Census Projections

	Lowest Series		Middle Series		Highest Series	
Year	Fertility	Net Migration	Fertility	Net Migration	Fertility	Net Migration
1999	2.036	739,000	2.048	954,000	2.059	1,191,000
2025	1.866	182,000	2.207	912,000	2.558	2,269,000
2050	1.800	166,000	2.219	984,000	2.647	2,814,000
2100	1.632	113,000	2.183	926,000	2.737	3,047,000

Source: Table B and Table E in Hollman et al.

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Recent trends do not necessarily support this outcome. After their buoyed fertility in the 1945–1964 Baby Boom, the fertility of non-Hispanic white women plunged in the 60s and 70s, followed by a gentler decline among non-Hispanic blacks in the 80s and 90s. Yet the fertility of Hispanics and Asians has remained higher or even risen, in large measure because of the huge influx of high-fertility immigrants.[5] From 1989 to 1995, the total fertility rate (TFR) of Mexican-origin women, who constitute nearly 70 percent of Hispanic births, *rose* by 10 percent.[6] From 1989 to 1997, the TFR of all Hispanic women rose slightly (2.9035 to 2.9995) and was fully 60 percent higher than that of non-Hispanic white females.[7]

Thus, to posit a decline in fertility all the way to replacement means positing not only successful assimilation but a decline in the foreign-born portion of the country. However, at least over the last three decades, the percentage of the foreign born has more than doubled, rising from 4.8 percent in 1970 to 9.8 percent in 1998.[8] And to assume that the fertility rate of non-Hispanic whites will ascend back to the 2.1 replacement rate flies in the face of recent American and European experience: In this country, it has now remained well below 2.1 for a quarter-century. In Europe, rates are even lower, despite growing concern about the "birth dearth" and the availability of pro-natalist incentives.

Immigration

What about the immigration assumptions? Again, the Census authors are candid in admitting their limitations as soothsayers: "Among the three major components of national population change . . . international migration is the component for which demographic science offers the least to future projections."[9] The authors emphasize that, in contrast to births and deaths, immigration is determined in good part by public policy, which is all but impossible to predict in the distant future. At least in terms of method, however, the new projections represent an innovation over earlier ones. For any given series, earlier Census projections simply pegged net immigration to one fixed number, say 500,000 or 880,000 — whatever seemed to reflect recent levels — and kept it at that for the duration. In contrast, the new projections are more dynamic, attempting to incorporate complex feedback mechanisms that can drive annual net immigration up or down. The middle series immigration assumptions are shown below in Table 3.

Yet this effort to derive more realistic immigration flows still falls short. Simply on the surface of it, with immigration having quadrupled over the last 50 years and with the populations of many "sending" countries on explosive trajectories to double or even quadruple before 2100, it is remarkable that Census projects virtually no change, even a modest decline in net migration.

Just how realistic Census researchers' underlying assumptions are is open to doubt:

- Recent heavy migrant flows from Mexico and Central America are deemed "somewhat transitory" because legalizations under the 1986 Immigration Reform and Control Act, and subsequent sponsorship of immediate relatives for legal immigration, are presumed to soon be running their course and finishing up. But this makes no allowance for additional, expanding "chain migration" as these relatives request *their* relatives. Moreover, it ignores the fact that in the current tight labor market, the INS is looking the other way as employers give jobs to illegal aliens. As reporter Louis Uchitelle writes in *The New York Times*, "…the more tolerant I.N.S. policy may be inducing more workers to immigrate, particularly from Mexico, because — once they get here — they face less risk in taking a job."[10] At the same time, political pressure is building for yet another nationwide amnesty for the illegal immigrant population, estimated at approximately 6 million.[11]

- Even though it grew substantially in recent decades, the flow of refugees and asylees is projected to decline in spite of a much larger world population and the possibility of widespread instability and population movements triggered by political, economic, social, and environmental crises. Canadian social scientist Thomas Homer-Dixon and *Atlantic Monthly* editor Robert Kaplan prefigure a world in which resource shortages lead to terrible hardship, brutal ethnic conflicts, and mass migration.[12] Brit-

Table 3. Middle Series In-Migration and Out-Migration Assumptions

Year	Net Migration	In	Out
2000	964,000	1,251,000	287,000
2005	872,000	1,184,000	311,000
2010	713,000	1,036,000	322,000
2015	734,000	1,063,000	329,000
2020	751,000	1,090,000	339,000
2025	912,000	1,270,000	358,000
2030	1,061,000	1,450,000	389,000
2050	984,000	1,450,000	466,000
2100	926,000	1,450,000	524,000

Source: Table E in Hollman et al.

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Admitting large numbers of immigrants in an effort to offset the rise in the dependency ratio will not make much difference.

ish environmental scientist Norman Myers warns of growing numbers of "environmental refugees."[13]

- After just raising the cap on H-1B non-immigrant visas (which often serve as a means to permanent immigration) two years ago, Congress and the administration are under tremendous pressure from the high-tech industry to raise it yet again. The agribusiness lobby is also pushing hard for a guest-worker visa program. Powerful people like Fed Chairman Alan Greenspan opine that our current high immigration rates just aren't high enough to keep wages and inflation down. In general, economists and the business and political establishment believe that a growing population is indispensable for a growing economy. If domestic birth rates aren't contributing enough workers and consumers, then these two key ingredients of prosperity must be imported. In this dominant view, population stabilization means economic stagnation.

- Global population is projected to grow by 3.3 billion by 2050, and 99 percent of the world's natural increase will take place in the less developed nations.[14] Population growth, high unemployment, and generally anemic economic performance in developing nations are all major "push" factors in the developing Latin American and Asian countries that send the most immigrants to the United States. While that growth is projected to taper off, it will still add very large numbers of people and workers to countries whose natural resources and economies are ill-equipped to handle them.

In view of these uncertainties, and an inherent inertia by demographers in interpreting dynamic trends, just how reliable are these projections likely to be? Once again, demographers themselves are the first to admit their own limitations. "Fertility and international migration . . . are functions of individual and collective decision-making that are difficult to forecast accurately," say the authors.[15] The longer the projection, the more sensitive to even slight changes in assumed fertility, mortality, and immigration rates.

The highly tentative nature of this glimpse of our possible future is illustrated by the case of three other Census projections a decade ago. Under the "middle assumption" of projections released in 1989, the U.S. population would have peaked at 302 million in 2040 and have begun a gentle descent.[16] In 1992, just three years later, Census issued revised projections that incorporated more realistic (i.e. higher) fertility and immigration assumptions.[17] The result was a stunning jump of more than 80 million in the projected 2050 medium scenario population (300 to 383 million) and a population that, instead of cresting, would grow with no end in sight.[18] In only three years, the official forecast had been turned on its head. And just one year later, in 1993, Census issued yet another set of projections.[19] Leon Bouvier and Lindsey Grant wrote, "Such an immediate revision is unprecedented and may reflect a profound uncertainty about the rapid demographic shifts taking place in this country."[20] Our rapidly evolving demographics have not made forecasting any easier or more reliable.

Three Important Implications

Assuming for a moment the fundamental, "ballpark" accuracy of these projections, just what do they signify for our country? Here's a look at three key implications:

The Dependency Ratio

This is the number of people in dependent age groups (under 15 and over 64) compared to the working-age population. As a result of the Baby Boom, the United States is now in the middle of an unusually low dependency ratio. However, when the Baby Boomers begin to retire in the 2010s, there will be a sharp rise in the dependency ratio.

At that point, there well could be irresistible political pressure to admit greater numbers of working-age immigrants to do what Werner Fornos of the Population Institute calls the "heavy lifting" for an elderly population that wants to relax in retirement.[21] Indeed, the Census authors state, "Our projections anticipate an increase in the influx of migrants to the United States as a response to the dramatic downward shift in the availability of potential workers relative to people outside the normal working ages."[22] The problem is that these workers, too, will age and retire someday. Would even more immigrant workers be needed to do *their* heavy lifting? Immigration demographer David Simcox calls this "Ponzi's Revenge: The Population Growth Treadmill."[23]

In what is perhaps the only good news to emerge from these projections, it appears that admitting large numbers of immigrants in an effort to offset the rise in the dependency ratio will not make much difference. Table 4 (on next page) shows dependency ratios under four immigration scenarios.

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In 2050, only 5.3 percentage points separate the total dependency ratios of the lowest and highest migration series (68.8 percent to 63.5 percent). By 2100, the difference has risen to only 6.2 (74.9 percent to 68.7 percent). The report specifically addresses this question and states that immigration is a "highly inefficient" means for increasing the proportion of the population who are workers in the long run. The upshot is that legions of foreign reinforcements won't win the battle against a growing dependency ratio.

The Nation's Ethnic/Racial Composition

Between 2000 and 2100, under the middle series, the non-Hispanic white percentage of the U.S. population will decline from 72 percent to 40 percent and will continue to fall after 2100. In younger age cohorts, non-Hispanic whites will comprise an even smaller percentage of the population. In contrast, the Hispanic share will jump from 12 percent to 32 percent (and continue to rise), Asians from 4 percent to 13 percent, and non-Hispanic blacks from 13 percent to 15 percent. Amazingly, as recently as the 1980 Census, Hispanics and Asians *together* accounted for only 8 percent of the population.[24]

Sometime around 2050, non-Hispanic whites will cease to be a majority. Each group in the new "minority-majority" country has longstanding grievances against whites. How this will all play out has been the subject of passionate speculation and debate. Will America be "balkanized" or even torn apart like observers as diverse as Georgie Anne Geyer, Arthur M. Schlesinger, Jr., and Richard Lamm have conjectured?[25] Or will the much-maligned melting pot continue to function, forming a new, more colorful and diverse American blend?

Environment, Resources, Quality of Life

How will double the number of Americans treat the environment of their country and the world? Remarkably, as a result of sustained national commitment and hundreds of billions of dollars, many environmental indices are actually better today than at the time of the first Earth Day in 1970, in spite of some 70 million more Americans.[26] But we would be fooling ourselves if we thought this progress constituted "sustainable development," or that it "meets the needs of the present without compromising the ability of future generations to meet their own needs."[27] Much of our economic growth and concurrent environmental progress rest precariously on what environmental visionary David Brower once called "Strength Through Exhaustion."[28]

Our growing energy consumption, carbon dioxide emissions, farmland and topsoil loss, and endangered species are all symptomatic of a nation headed the wrong way on the path to sustainability. Yet conventional wisdom holds that both population and per capita resource consumption will grow tremendously in the new century.

U.S. energy consumption increased 22 percent from 1973 to 1995, with growing dependence on finite reserves of gas, coal, and imported oil.[29] Population growth accounted for about 90 percent of this.[30] The 1991 National Energy Strategy forecasted moderate growth in U.S. energy use in the coming decades, more or less matching population growth.[31] If per capita energy consumption remains constant by dint of ever-increasing energy efficiency, then total U.S. energy consumption will still double along with population over the coming century. But national and world petroleum and natural gas reserves are likely to dwindle to insignificance well before this.[32] Com-

Table 4. Census Bureau-Projected Dependency Ratios, 2000-2100

	Zero Migration		Lowest Series		Middle Series		Highest Series	
Year	> 64 and < 15	65+	> 64 and < 15	65+	> 64 and < 15	65+	> 64 and < 15	65+
2000	51.5	19.2	51.4	19.2	51.3	19.1	51.3	19.2
2010	49.7	20.4	49.6	20.1	49.4	19.8	49.1	19.4
2020	58.1	27.7	57.7	26.8	57.2	26.0	56.4	24.8
2030	69.4	37.1	67.6	35.0	65.9	33.2	63.4	30.5
2040	71.2	39.1	68.8	36.3	66.8	34.1	63.5	30.6
2050	71.2	38.9	68.8	36.1	66.9	33.9	63.5	30.3
2060	72.9	40.2	70.4	37.4	68.1	35.0	64.5	31.3
2070	73.1	40.7	70.8	38.1	68.4	35.4	64.9	31.9
2080	74.1	41.7	72.1	39.4	69.6	36.6	66.2	33.3
2090	75.9	43.6	73.6	41.1	70.9	38.1	67.5	34.8
2100	77.3	45.2	74.9	42.6	72.0	39.5	68.7	36.2

Source: Table F in Hollman et al.

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The report states that immigration is a "highly inefficient" means for increasing the proportion of the population who are workers in the long run.

petition for the world's remaining oil, much of it concentrated in the volatile Middle East, will be a source of escalating global insecurity. However, the United States is richly endowed with two other fossil fuels: coal and oil shale. Unfortunately, both are plagued with egregious environmental problems: landscape disfigurement, heavy water demands, acid mine drainage, and high sulfur dioxide and carbon dioxide emissions. Technological optimists argue that growing energy needs could be met with some combination of nuclear fission, fusion, breeder reactors, solar thermal, photovoltaic cells, wind, biomass, and efficiency improvements, but none of these is problem-free. Even the "green" renewables are not panaceas: they are land-intensive, unsightly, and in the case of wind turbines, have even been implicated in bird kills.

Climatologists generally agree that global warming is underway and that human emissions of the so-called greenhouse gases, principally carbon dioxide (CO_2) and methane (CH_4), are responsible.[33] Without controls, the Intergovernmental Panel on Climate Change predicts that average global surface temperatures will rise by 2°C (4°F) and sea levels by 0.5 meters (1.7 feet) by 2100.[34] Concern over possible economic and ecological ramifications led to the 1997 signing of the Kyoto Treaty in Japan. As the country with by far the largest industrial CO_2 emissions, the United States must play a major role in any international effort. In Kyoto, the Clinton-Gore administration committed the United States to reducing its CO_2 emissions to 7 percent below 1990 emissions by 2010, an ambitious but attainable goal.[35] Yet a booming economy and population — and no firm resolve — have only served to boost our carbon emissions. We are moving away from the target rather than toward it; population growth in the United States almost doubles the required per capita reduction of carbon emissions needed.[36]

A continually growing population will also worsen urban sprawl. According to the U.S. Department of Agriculture, in the 1990s an average of three million acres per year of rural land was developed.[37] If this rate continues to 2100, the United States will convert an additional 300 million acres of rural countryside. That's 470,000 square miles paved or otherwise built-up, equivalent to 57 percent of the land area of the 24 states east of the Mississippi River. To avoid this outcome through so-called "Smart Growth" initiatives and regional planning would mean drastically raising the density of existing built-up areas, as well as embracing mass transit wholeheartedly to avoid stifling traffic congestion. Overall, one effect of the projected population growth will be to increase government regulation's role in American society.

The combination of relentless development and land degradation will reduce America's productive agricultural land base even as the demands on that same land base from a growing population increase. If current rates continue to 2100, the nation will lose more than 300 million of its remaining 375 million acres of cropland, or 82 percent of it, even as the U.S. population grows from 275 million to 571 million. These trends have led some scientists to conclude that some day America may no longer enjoy a food surplus for export to the world. Cornell University agricultural and food scientists David and Marcia Pimentel and Mario Giampietro of the Istituto Nazionale della Nutrizione in Rome have argued that the United States could cease to export food by 2025.[38]

Finally, while disappearing tropical rain forests, panda bears, and gorillas rightly worry Americans, we will have our hands full here with our own biodiversity crisis. Even at present, 371 globally rare terrestrial ecological communities are threatened in the United States.[39] In 1996, the Nature Conservancy reported that almost one-third (32 percent) of 28,000 species and an additional 11,000 subspecies and varieties of plants and animals in the United States were in some danger.[40] As U.S. population doubles and resource exploitation intensifies, pressures on precarious living resources can only increase.

Certainly it is well beyond the "head-counting" mission of the Census Bureau to address such profound questions. Yet one would have hoped for more from the country as a whole. But this is typical. In describing America's lackadaisical approach to energy, historian Otis Graham weighs the evidence that "the inevitable end of the petroleum era will begin to be felt in the first half of the twenty-first century, and the time to prepare for it has been poorly used."[41]

The same might be said about other environmental bills that will be coming due. The nation with the greatest technical and financial means of any in the history of the world is postponing the difficult choices on the path to a sustainable future. Several years ago the President's Council on Sustainable Development advised that the United States move toward population stabilization.[42] The Council's Population and Consumption Task Force added: "This is a sensitive issue, but reducing immigration levels is a necessary part of population stabilization and the drive toward sustainability."[43] These recommendations went largely ignored. That, too, seems to be the fate of the latest projections on the demographic consequences of current immigration levels.

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End Notes

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